(No Model.)

S. W. MARTIN.

IRON FENCE.

No. 245,189. Patented Aug. 2, 1881.

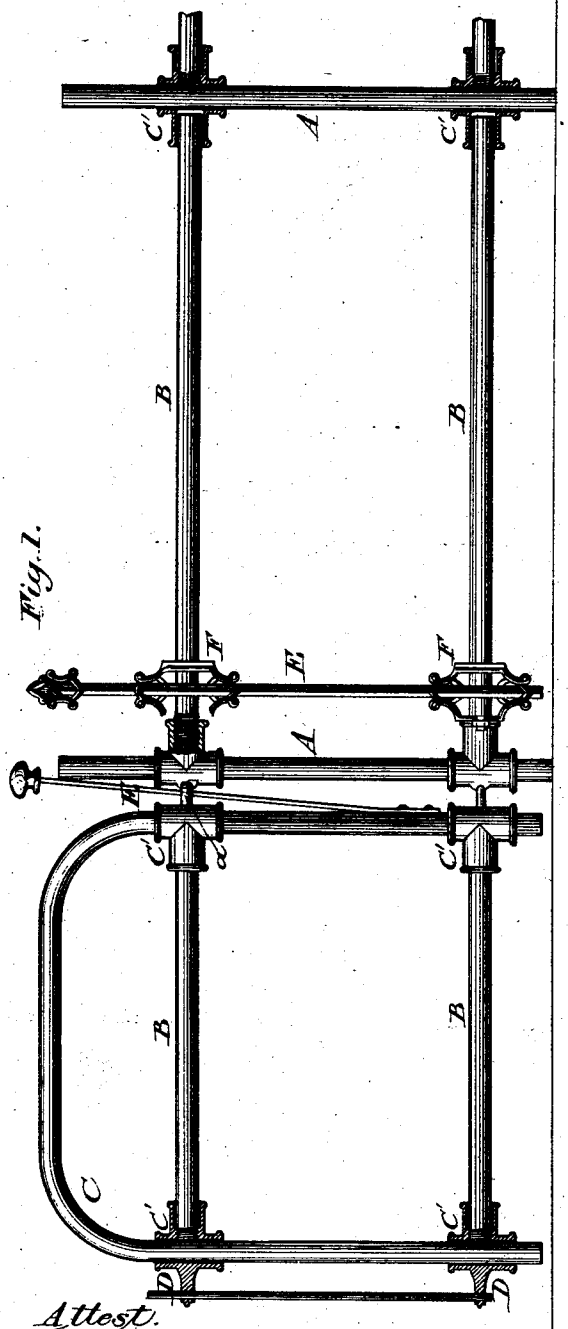


Fig. 1.

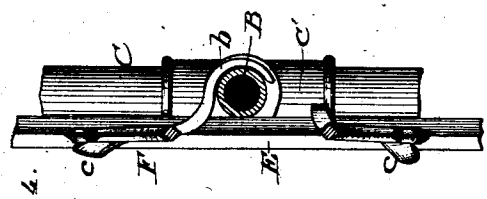


Fig. 4.

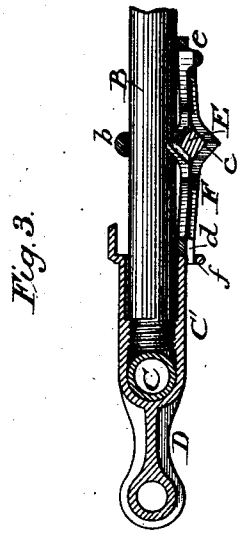


Fig. 3.

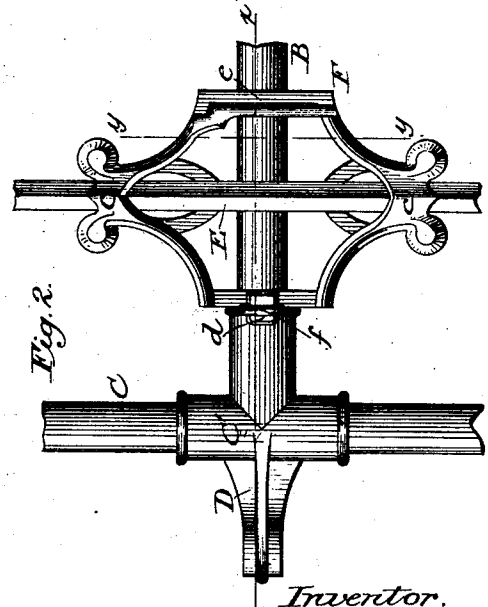


Fig. 2.

Attest.

Sidney P. Hollingsworth

Walter J. Dodge

Inventor.

S. W. Martin.

By Dodge & Dodge

attys.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

SAMUEL W. MARTIN, OF SPRINGFIELD, OHIO.

IRON FENCE.

SPECIFICATION forming part of Letters Patent No. 245,189, dated August 2, 1881.

Application filed April 4, 1881. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL W. MARTIN, of Springfield, in the county of Clarke and State Ohio, have invented certain Improvements in Iron Fences, of which the following is a specification.

My invention relates to improvements in the construction of metallic gates and fences, designed more particularly for that class of structures which are composed mainly of gas pipe or tubing, but applicable also to those constructed mainly of solid rods of metal.

The principal objects of my invention are to permit a ready vertical adjustment of the gate or fence with reference to the sustaining-posts, to permit the expansion and contraction of the fence-rails without affecting the posts, and to permit a secure attachment of the palings or rods.

Referring to the accompanying drawings, Figure 1 represents a side elevation of my gate and fence, each being shown in section at one side. Fig. 2 is an enlarged face view, showing the manner in which the rosettes for holding the pickets in place are constructed and attached. Fig. 3 is a horizontal cross-section on the line *x x;* Fig. 4, a cross-section on the line *y y.*

Referring to the drawings, A represents the posts by which the fence-panels and the gates are sustained, the posts being erected rigidly in an upright position in the ground, and being constructed, preferably, of gas-pipe.

B represents the horizontal rails or cross-bars, and C the gate-frame, and D the gate-hinge. The gate-frame consists of a single piece of tube bent into the form of an inverted letter U, and having its vertical sides secured to the ends of the horizontal rails B by means of T-shaped coupling-pieces, as shown. These coupling-pieces are adapted to permit the vertical arms of the gate-frame to pass loosely through them, in order that the gate may be adjusted vertically therein; but they are threaded to receive the ends of the bars B, each bar having right and left hand threads upon its opposite ends, so that it may be secured into the couplings and against the opposite sides of the gate-frame, in order to secure the same firmly in the couplings and fix it at the height desired. By simply turning the bars B backward the frame may be released, after which it may be raised or lowered, as required, and again fixed in position by screwing the bars up until their ends rest against it. The couplings on the rear side of the gate have the hinges D formed upon them, as shown, the hinge and coupling being ordinarily cast complete in one piece. The couplings at the front side of the gate may have the latch device or portions of the same cast thereon. In the drawings the upper coupling on the front side has an eye or loop, *a*, to guide the spring-latch E.

It will be observed that the above-described construction is exceedingly cheap, simple, and strong; that it permits the gate to be adjusted vertically at will—a matter of great convenience and importance, particularly in those sections of country in which deep snows fall during the winter season.

While it is preferred to form hinges upon the couplings, it is manifest that they may be otherwise formed and attached.

If desired, keys may be driven into the couplings to secure the bars B and prevent them from being unscrewed accidentally.

The pickets or palings of the gates may be constructed and applied in any suitable manner; but it is preferred to attach them in the same manner as the fence palings and pickets hereinafter described.

The fence is constructed in a manner somewhat similar to that in which the gate is constructed, being composed, essentially, of the upright posts A and the horizontal rails B, connected at their ends to the posts by means of the cruciform couplings C′. The fence is constructed in panels or sections, each panel embracing one post and the rails extending therefrom to the next post. Each rail is screwed at one end firmly into one of the couplings C′ and against the post, in order to sustain the rail and coupling at the proper height; but at the opposite end the rail is inserted loosely into a supporting-coupling on the next post, the rail being stopped at such distance from the post as to leave room for elongation by expansion. It will be seen that each coupling is held in place by the end of one rail, and that it, in turn, sustains the loose end of the next rail.

Under the above construction it will be seen

that by slightly unscrewing the rails the rails and couplings may be released and their vertical adjustment permitted. In this way the entire body of the fence may be raised and lowered as required.

E represents the vertical pickets or rods of the fence, sustained through the medium of small skeleton holders or rosettes F upon the horizontal rails of the fence. The rosettes F are constructed in the manner clearly represented in Figs. 1, 2, and 4, each with a lip, *b*, to engage over and around the rail on the back, and with bars or sockets *c* at the upper and lower ends, to receive and hold the ends of the rods or pickets, the pickets being passed through the rosettes in the manner shown, and held firmly thereby on the front and rear faces. The rosettes are extended laterally to bear against the face of the rail, and are provided at their adjacent ends each with a projecting lip, *d*, on one edge and a vertical slot or opening, *e*, in the opposite edge, the rosettes being placed upon the bar side by side. The lip of each enters the slot of the next, and in this manner the series are tied together and held the more securely in line. The lip on the rosette nearest the post enters an eye or socket, *f*, made for the purpose in the coupling, by which the fence-rail is supported, as shown, and thus secures the rosette firmly in place. The arms or hooks *b* formed on the back of the rosettes may be hammered or bent around against the under side of the rail to prevent the rosettes from being lifted therefrom, or they may simply hang upon the rail and be retained in place by their weight.

Having thus described my invention, what I claim is—

1. As an improvement in the construction of gates and fences, the combination of the vertical standards, the horizontal rails and the couplings, the latter arranged to sustain the rails upon the standards, and secured by screwing the rail into them against the standards.

2. In combination with the vertically-adjustable gate-frame C, the threaded horizontal bar B, and the threaded coupling or socket C′, having the hinged arm formed thereon, as described and shown, whereby the vertical adjustment of the gate-frame with reference to the hinge is permitted.

3. The improved fence consisting of the vertical posts, the couplings mounted thereon, and the horizontal rails screwed at one end into a coupling against the post, and seated at the opposite end loosely in a coupling upon a second post, substantially as described and shown.

4. A fence-panel consisting of a post, two or more couplings or collars mounted thereon and provided with threaded openings in one side and unthreaded openings in the opposite side, and fence-rails screwed into the threaded side of said coupling against the post.

5. In combination with the rail-supporting coupling, provided with an ear or socket, *f*, and a rosette provided with a lip seated in said socket, substantially as shown.

6. The rosette for sustaining the pickets of an iron fence, constructed with the lip at one side, the slot in the opposite side, and the hook or arm upon the back.

SAMUEL WEBB MARTIN.

Witnesses:
CHAS. A. HARRIS,
J. B. CHRISTIE.